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Archeological Resource Survey Of The Proposed New Braunfels Utilities Highway 46 West Water System Expansion Project, Comal County, Texas

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Antiquities Permit 8195

January 2018

AmaTerra® ENVIRONMENTAL, INC.

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by
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Prepared for

New Braunfels Utilities

and

Freese & Nichols, Inc.

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public version

by

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Abstract

AmaTerra Environmental, Inc. (AmaTerra) conducted an archeological resource survey on behalf of New Braunfels Utilities (NBU) and their engineering contractor Freese and Nichols, Inc. (FNI) in advance of the Highway 46 West Water System Expansion Project in Comal County, Texas. NBU is proposing building one new pump station (half-acre), expanding capacity at an already existing pump station (half-acre), and installing new and upgrading existing waterlines between the two of them (approximately 3.5 miles) along the south side of State Highway (SH) 46. Because NBU is a political subdivision of the State of Texas, it is subject to the Antiquities Code of Texas (ACT), requiring survey for archeological resources within the project footprint. All work was carried out to conform to 13 TAC 26, which outlines the regulations for implementing the ACT.

Fieldwork was conducted on October 18–19th, 2017 by AmaTerra under Antiquities Permit 8195. Fieldwork included a pedestrian survey with 100 percent surface inspection of the proposed construction easements supplemented with shovel testing at 100-meter intervals. Additional tests were placed in the proposed new pump station while the pump station expansion was visually inspected only. The surface was found to be vegetated with grasses and understory foliage with mesquite shrub, cedar and Live Oak trees in the more densely vegetated areas. Ground visibility ranged from 50 to 100 percent across the project area. A single prehistoric site, 41CM411, was newly recorded as part of the survey and consisted of a small, diffuse surficial lithic scatter. Two previously recorded sites (41CM47 and 41CM298) were revisited as part of the investigation as well. Site 41CM47 is a mid- to late nineteenth century historic structural complex known colloquially as the “Walzem Chapel” and 41CM298 consists of several surficial lithic scatters and a quarry site. AmaTerra recommends that no further work is necessary within the project footprint prior to construction, and the portions of the three sites within the proposed construction easements are recommended ineligible for listing as State Antiquities Landmarks (SAL). All notes and forms generated while conducting fieldwork will be curated at the Texas Archeological Research Laboratory (TARL) in Austin, Texas.

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Chapter 1
Introduction and Management Summary

AmaTerra Environmental, Inc. (AmaTerra) archeologists conducted an archeological resource survey on behalf of New Braunfels Utilities (NBU) and their engineering contractor Freese and Nichols, Inc. (FNI) for the proposed Highway 46 West Water System Expansion Project, which includes two half-acre water pump stations and 3.2 miles of associated water pipeline through property and easements controlled by NBU in Comal County, Texas (**Figures 1** and **2**; **Appendix A**). The Comal County Pump Station is a proposed new facility to be located south of Range Road and will consist of an above ground storage tank and pump station. The second facility is the Highway 46 Pump Station, located west of Mission Valley Road and the intersection of State Highway (SH) 46. This station has already been constructed, but as part of the Highway 46 West Water System Expansion Project, will be expanded. Construction at the facility will be limited to the previously disturbed pump station property. Additionally, a total of approximately 18,300 linear feet (approximately 5,577 meters [m]) of new 16- to 24-inch water pipelines will be newly installed and/or upgraded along SH 46 as well as surrounding neighborhoods that branch from the highway. Portions of these new lines will be installed within existing NBU owned utility easements, adjacent to existing water lines, while others will be installed within new easements on otherwise private property to be secured specifically for this project. Approximately 14,100 linear feet (approximately 4,300 m) will be installed within open terrain whereas 4,200 linear feet (approximately 1,300 m) will be installed under existing roads. The project is subject to the Antiquities Code of Texas (ACT) because the construction will occur on property and easements controlled by NBU, a political subdivision of the State of Texas. All work was carried out to conform 13 TAC 26 which outlines the regulations for implementing ACT and was surveyed under Antiquities Permit 8195. With no federal involvement anticipated, this project is not subject to cultural resource regulatory oversight outlined in Section 106 of the National Historic Preservation Act (NHPA).

The project's footprint consists of 20-foot-wide waterline easements and the two half-acre pump stations. The pipeline will be installed primarily through open-cut trenching with occasional borings. AmaTerra archeologists James J. Hill (Principal Investigator) and Amy Goldstein (Project Archeologist) expended twenty-six person-hours onsite during fieldwork from October 18–19, 2017.

Because the survey was of short duration, this document is laid out in short report format as defined under the Council of Texas Archeologists (CTA) Guidelines for Cultural Resource Reports (2017). Chapter Two will present the methodology used during fieldwork, Chapter Three will summarize field observations and results, and Chapter Four will provide recommendations for the projects ACT compliance obligations.

Of note: Shortly after field survey was completed, project engineers considered alternative routes for some portions of the waterlines. At the same time, construction at the proposed Comal County Pump Station could not be delayed pending reroute investigation and regulatory

review. AmaTerra submitted an interim coordination letter on the proposed pump station (Hill to Durst, 11/10/2017). On November 28, 2017, the THC concurred with recommendations that the pump station construction could proceed with no significant archeological resources affected. Copies of this correspondence are included as **Appendix C**.

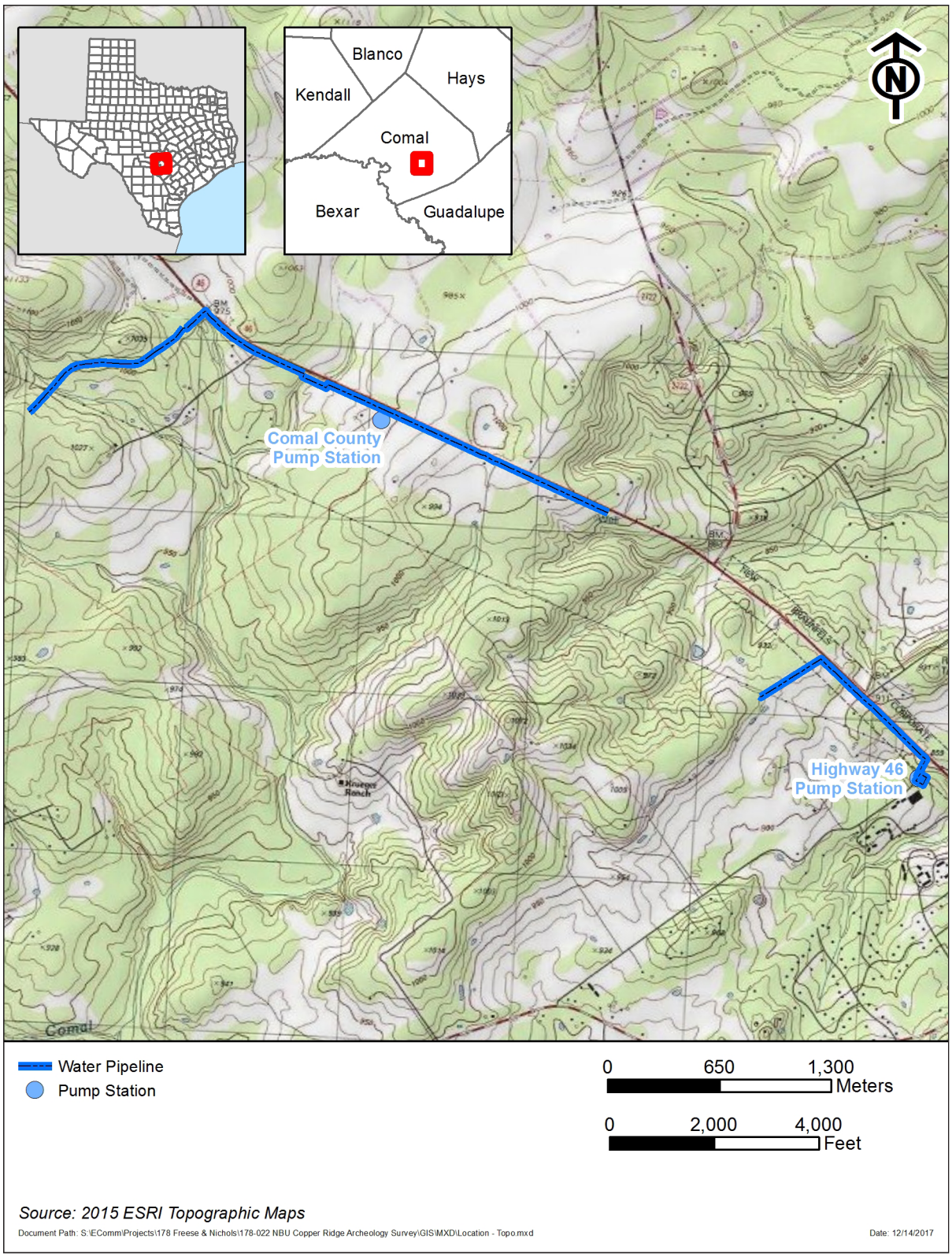

Figure 1. The project footprint and Area of Potential Effects depicted on the 2015 New Braunfels East, Texas USGS 7.5-minute Topographic Map.

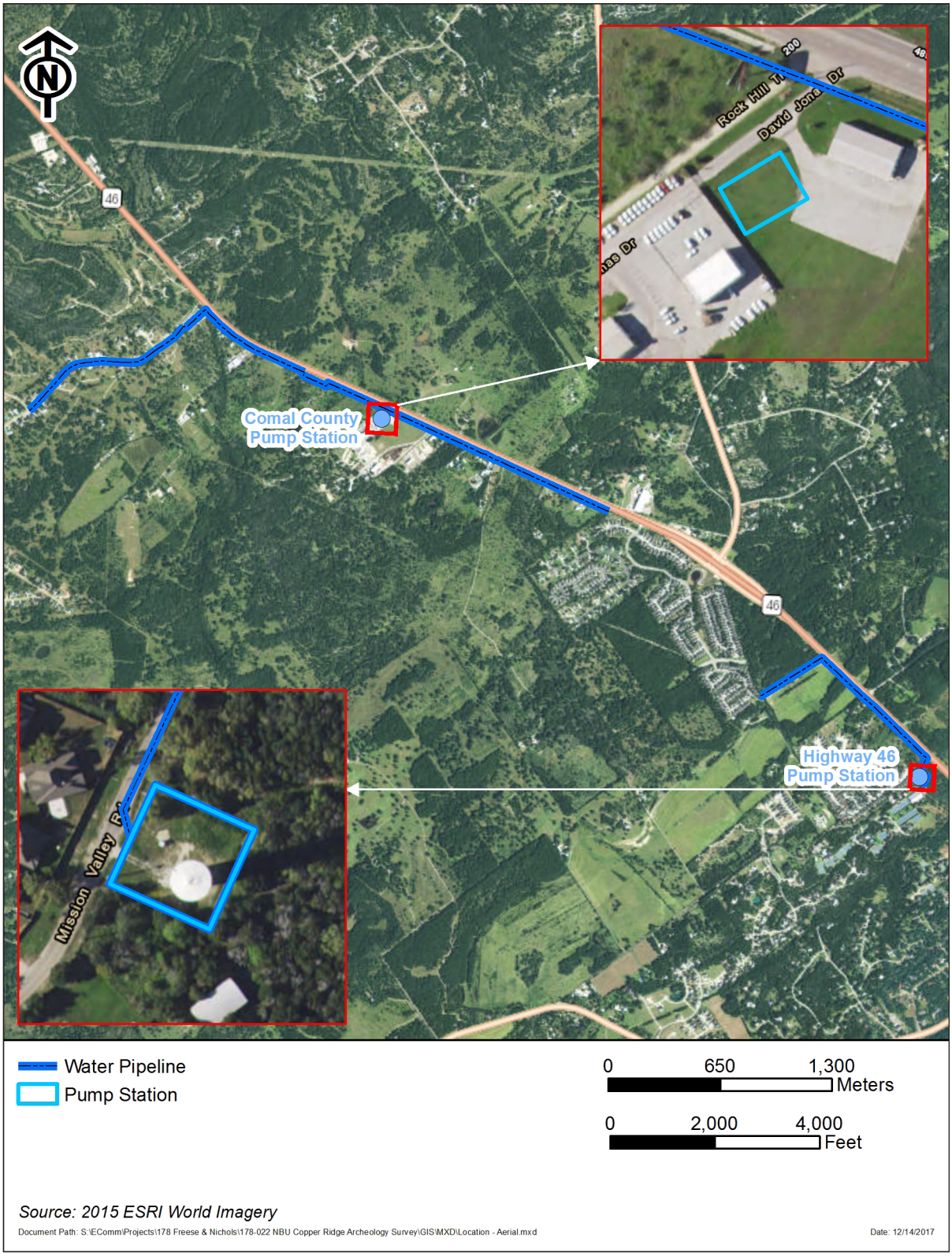

Figure 2. The project footprint on recent aerial imagery.

Chapter 2
Methodology

Archeological fieldwork along the waterline areas conformed to a modified 100 percent intensive linear survey standard set forth by the Council of Texas Archeologists (CTA). In unpaved areas, this included visual inspection of the entire project area along with manual shovel test excavation at 100-m (328 feet) intervals within the proposed six-meter wide (approximately 20-foot) easement. The waterline corridors proposed to be installed beneath existing roads were briefly visually assessed, but not subjected to shovel testing. In total, approximately 2.5 miles of proposed waterline easement were surveyed for archeological resources. The remaining mile of proposed construction easements were visually assessed from the existing SH-46 right-of-way (ROW) as they were proposed either under existing roads or were in one of the three parcels where right-of-entry (ROE) was not available at the time of the survey. The proposed Comal County Pump Station was visually inspected and subject to three subsurface shovel tests (in accordance with CTA standards for area survey of projects of one acre or less). The proposed expansion at the existing Highway 46 Pump Station was visually inspected and deemed too disturbed to warrant subsurface testing.

The survey area was loaded onto handheld GPS units to aid in navigation within the projects proposed footprint. Areas of disturbance were photographed, and notes were made on the conditions archeologists encountered during their investigations. The entire proposed construction easement and pump stations were flagged prior to AmaTerra's archeological survey. This enabled archeologists to clearly discern the proposed project area.

Shovel tests measured 30 centimeters (cm) in diameter and, due to shallow bedrock, extended to a maximum depth of 50 cm below surface (cmbs). The shovel tests were excavated in 10-cm increments and all soil was screened through a ¼-inch hardware cloth. Shovel tests were backfilled upon completion. Relevant information for all shovel tests was be recorded on a standardized form and shovel test locations were marked with handheld GPS units.

Although portions of the project area had been previously surveyed by Hicks & Company in 2006, AmaTerra surveyed the entire project area (Miller et al. 2006). A total of 50 shovel tests were excavated within the proposed 20-foot wide waterline easements and associated half-acre pump stations, exceeding the recommended 46 shovel tests recommended under CTA guidelines.

One newly recorded site was identified during the survey (41CM411), and two previously recorded sites (41CM47 and 41CM298) were re-visited. For the purposes of this investigation, an archeological site was defined as containing: (1) five or more surface artifacts within a 30-m radius, or (2) a single cultural feature, such as a hearth or burned rock midden, observed on the surface or exposed during shovel testing, or (3) a positive shovel test containing at least three total artifacts, or (4) two positive tests located within 20 m of each other. Shovel tests were excavated in each site recorded or revisited as part of the survey to explore the depth and extent of deposits.

Chapter 3
Survey Results

Environmental Setting

The surface of the proposed project area was found to be heavily impacted in several areas by previous land-clearing, agricultural practices, road construction, and previous utility installation (**Figures 3** and **4**). The undisturbed portions of the project (roughly 80 percent) consisted of sections of open agricultural pasture and scattered wooded areas sparsely vegetated with grasses and patches of mesquite, with dispersed cedar and Live Oak trees (**Figures 5** and **6**). Soils were typically loamy and ranged from a 10YR 3/4 to a 10YR 5/4 with shallow limestone bedrock eroding at or near the surface across the project area (**Figure 7**).

Shovel Testing

A total of 50 shovel tests were excavated as part of the field efforts (**Appendix B**). Along the 2.5-mile segment of proposed waterline easement surveyed by AmaTerra, archeologists excavated 47 shovel tests. Sixteen were excavated during the delineation of newly recorded and re-visited sites while the remaining 31 served as a discovery tactic. 3 additional tests were placed at the proposed location of the Comal County Pump Station. No shovel tests were excavated within the Highway 46 pump station as it was shown to be heavily disturbed. A typical shovel test measured approximately 30 centimeters (cm) in diameter and extended no deeper than 50 cm below surface (cmbs). Variability within shovel tests did exist depending largely on localized field conditions including areas of disturbance, soil types, bedrock, etc. The average shovel test was excavated to a depth of 15 cmbs as shallow bedrock was observed across much of the project area. The shovel tests were excavated in 10-cm increments and all soil was screened through a ¼-inch hardware cloth. Relevant information for all shovel tests was recorded on a standardized form and will be curated at TARL along with all other documentation associated with the project after the final report is submitted to NBU.

Site Summary

Field efforts identified a newly recorded archeological site (41CM411) and two previously recorded archeological sites (41CM47 and 41CM298). The definition of a site was based on: (1) five or more surface artifacts within a 30-m radius, or (2) a single cultural feature, such as a hearth or burned rock midden, observed on the surface or exposed during shovel testing, or (3) a positive shovel test containing at least three total artifacts, or (4) two positive tests located within an individual structures footprint. Historical sites documented were subject to archival research. This research included an attempt to determine history of ownership and land use through deed research, and map research, wherever possible.

Figure 3. Previous disturbance from clearing and pad construction pipeline at Highway 46 Pump Station, facing south.

Figure 4. Previous disturbance from highway construction along SH 46, facing northeast.

Figure 5. Typical surface area within the proposed construction easements, facing southwest.

Figure 6. Typical surface area within the proposed construction easements, facing north.

Figure 7. Fragmented and eroded bedrock on surface of proposed construction easement, facing south.

In general, sites identified within the project area had a minimum of six subsurface tests excavated to define site boundaries relative to the study area (**Figure 8**). Specific site information was recorded on standardized forms and has been submitted to TARL for inclusion in their archives and to obtain new site trinomials. All artifacts were field catalogued and returned to their original locations as no artifacts were collected. A discussion of each site is found below.

Newly Recorded Sites

41CM411

Site 41CM411 is a small, surficial prehistoric lithic scatter consisting of approximately 20 pieces of lithic debitage and a single, crude biface fragment spread over a 75 x 40-m area (**Figure 9**). It is located on a low rise within an open agricultural field that is bisected by a two-track access road approximately 400 m (0.25-miles) northwest of SH 46 and the Heuco Springs Loop Road intersection just outside of the City of New Braunfels. The site is spread across the surface of an exposed agricultural field where ground surface visibility is 80–100 percent (**Figure 10**).

Six shovel tests were excavated within the surface scatter, all were negative (**Figure 11**). According to the USDA-NRCS Web Soil Survey (2017), soils within the site area are affiliated with the Medlin-Eckrant silty loam association with 1–8 percent slopes. Shovel tests placed

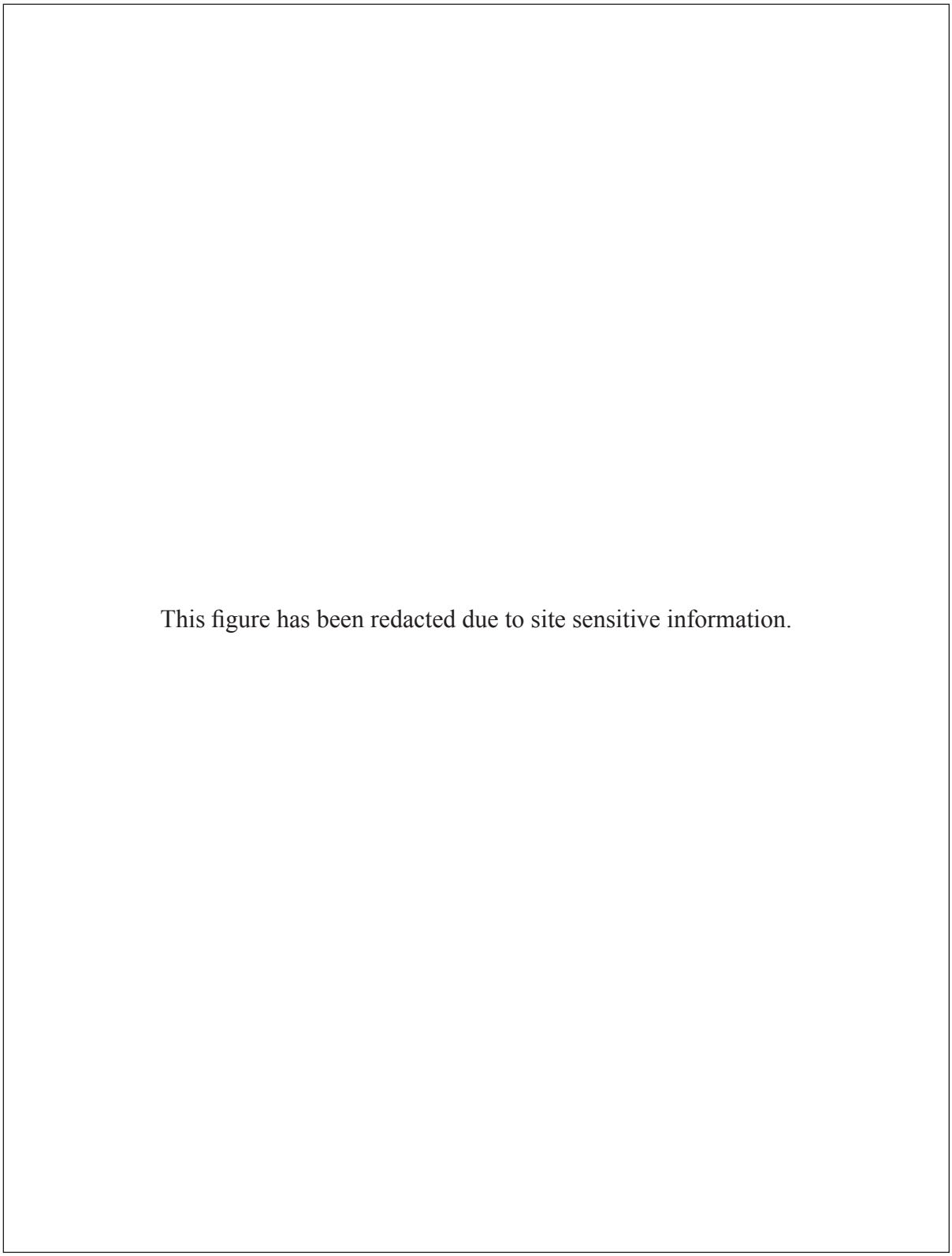

Figure 8. Shovel Test and site locations along the Highway 46 West Water System Expansion Project.

within the site area encountered light brown (10YR 4/4) loamy soil that overlays limestone bedrock at depths that range from 5 to 10 cmbs. Vegetation consisted primarily of cedar trees located on the periphery of the site intermixed with Live Oak, grasses and shrubs.

Figure 9. Sample of artifacts recorded at Site 41CM411.

Cultural materials found on the surface were in a secondary context, as was confirmed by lithic debitage observed eroding slightly downslope on southside of the survey corridor. Archeologists did not observe any features, diagnostic artifacts or otherwise dateable material. The prehistoric assemblage observed within the proposed waterline easement is unexceptional to the region and contains little potential additional data. The site has been heavily impacted by modern ranching and presumed tree clearing as well as slope wash. This likely has contributed to the displacement of artifacts across the site. Shovel testing revealed no buried material and shallow soils (10 cmbs). As such, the site retains limited research potential due to a lack of integrity, depth of deposits, diagnostic material and features beyond the data that has been gathered during survey. No additional work is suggested and 41CM411 is not recommended eligible for listing as a SAL.

Figure 10. Overview of Site 41CM411.

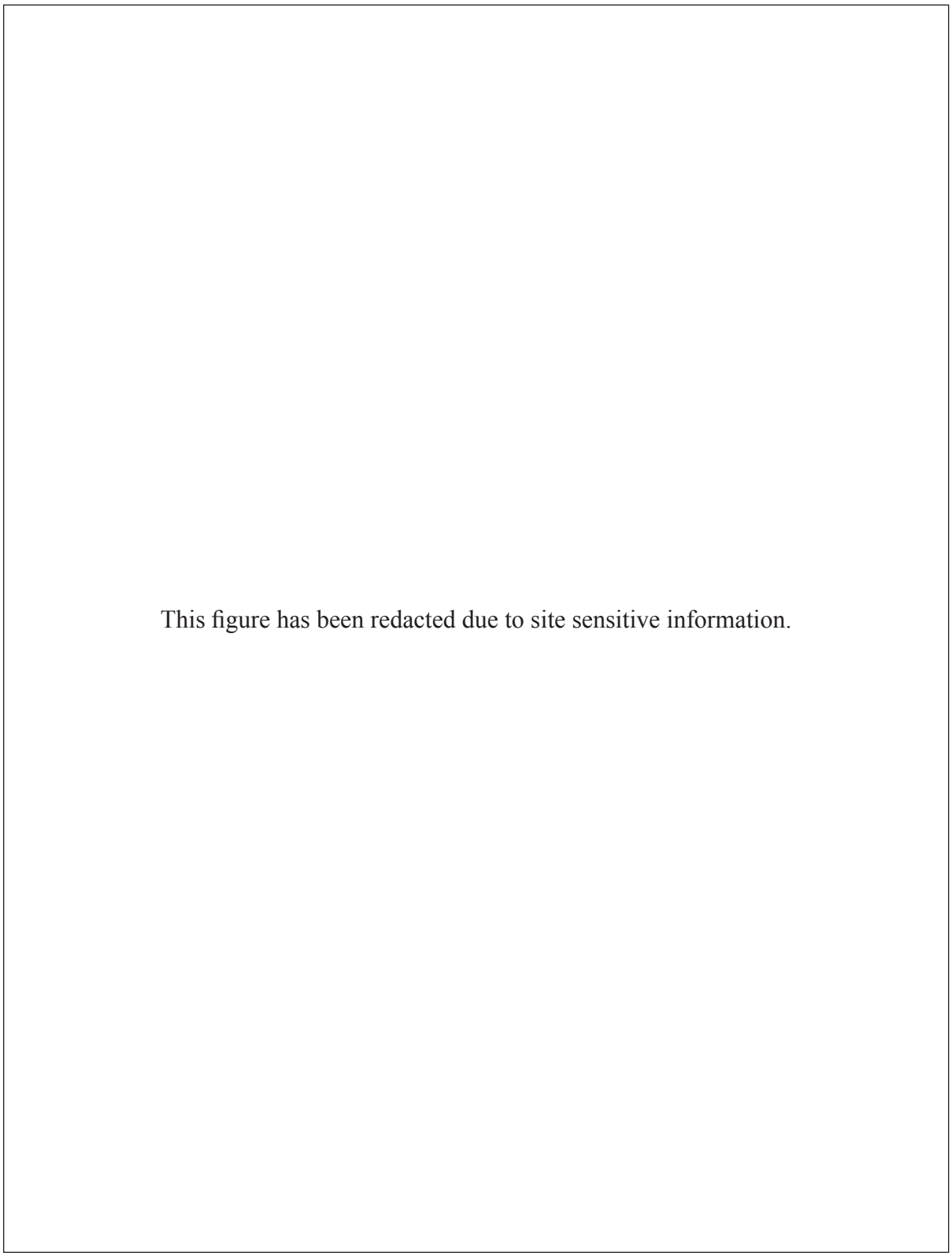

Figure 11. 41CM411 Site Map for Highway 46 West Water System Expansion Project.

Previously Recorded Sites

41CM47

Site 41CM47, also known colloquially as the Walzem Chapel, is a mid-nineteenth century Catholic chapel (circa 1850s–1870s) with an associated dry stacked stone wall, a small corner of which the proposed waterline easement overlaps (**Figure 12** and **13**). Walzem Chapel was initially recorded in 1966 by Daniel E. Fox (Texas Historical Commission 2017a). Limited information was available on the Atlas, as the chapel itself was incorrectly plotted and well outside the current proposed project area. The site is located just south of the intersection of Soledad Lane and La Bahia Loop. Much of the site resides in a manicured park in a corner lot within the Mission Valley housing development. A Historical Marker placed at the entrance to the park in February of 2015 gives a brief history of the chapel itself as well as its builder Johann Joseph Walzen and his wife Anna Gertruda Walzem (Texas Historical Commission 2017b). The marker reads:

> *"Located in the Mission Valley Settlement, Walzem Chapel was built to serve Catholics in this once remote area. In the mid-1800s, German immigrants came to Texas under the auspices of the Adelsverein in search of freedom and economic opportunity. Johann Joseph and Anna Gertruda Walzem settled in the Mission Valley Settlement in the 1850s and built a home. Mr. Walzem was a stone mason and has been credited with building several houses in the Mission Valley Settlement. Walzem and his family were important members of the community in the early days of New Braunfels development.*
>
> *"Johann and his sons built the chapel (Also known as St. John Chapel) located on an acre plot in the north end of their original 160-acre tract. Legend has it that after working for several years, Mr. Walzem visited his homeland and upon returning to Texas, built the chapel in thanksgiving for a safe trip. The chapel is mistakenly referred to as "Walzem Mission" due to its location in the community. A stone at the top of the entrance to the chapel is marked "1870," indicating the completion date. The walls were made of limestone locally quarried and cut by Johann and his sons with mortar from a local kiln, demonstrating pioneer's ability to survive in the wilderness.*
>
> *"Johann gave the land and the chapel to the Right Reverend Bishop C.M. DuBois of the Catholic Church in 1871 and it eventually was purchased by a developer. The homeowners of the subdivision now care for the chapel and property. While the stone walls of the chapel are all that remain, a reminder of the challenges and isolation of the frontier still linger."*

Deed research revealed the park (including the chapel) is privately owned by the Mission Valley Homeowners Association after the contractor for the development deeded the property to the association shortly after the completion of the development. Before that, the property was primarily owned by the Catholic Church with the Archbishop of San Antonio, I. P. F. Flores, conveying the land from the Church to private owners (presumably the developer) in early 1989 (Comal County Historical Commission 2017). The chapel itself is enclosed by a modern iron fence surrounded by flower beds and other decorative vegetation (**Figure 14**).

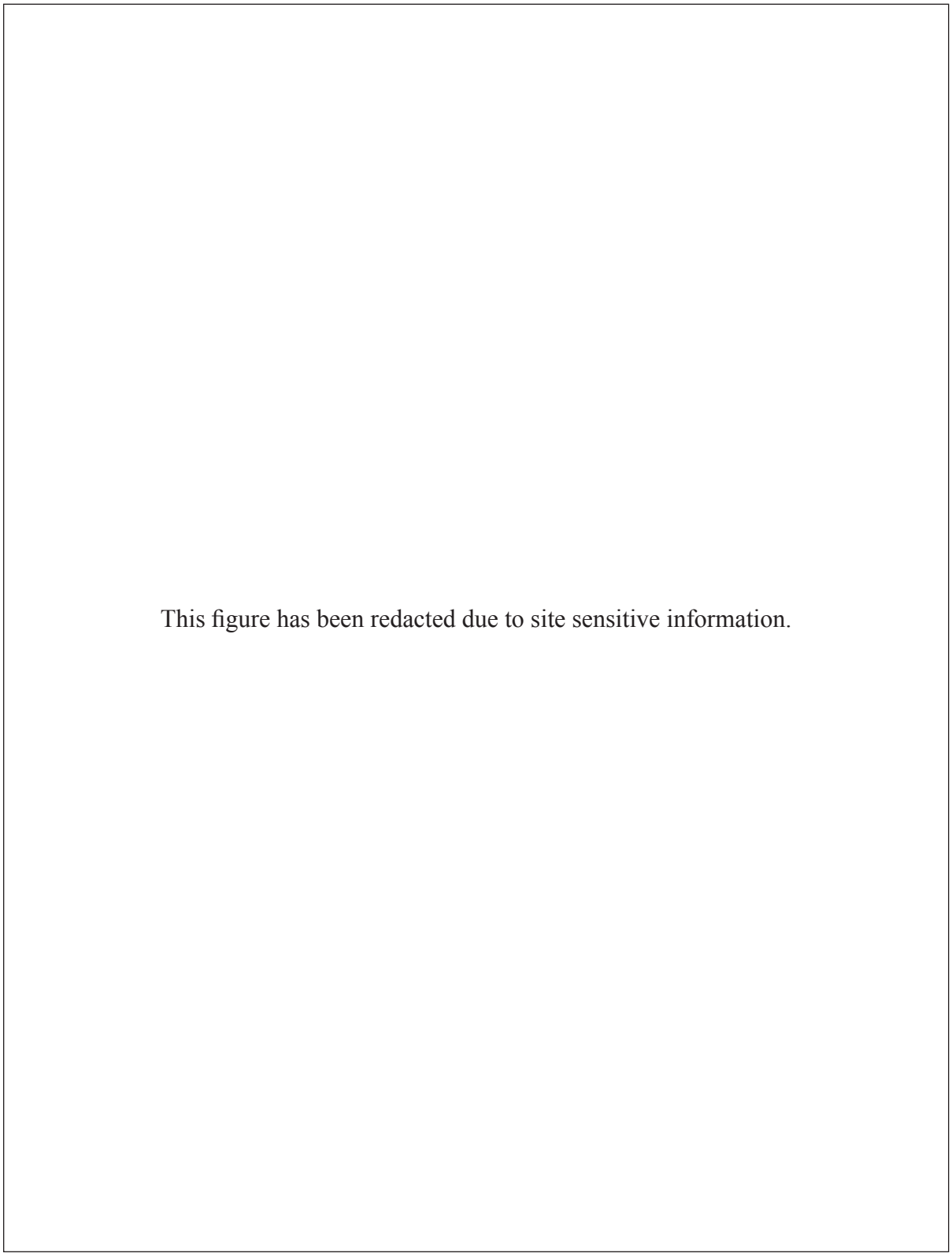

Figure 12. 41CM47 Site Map for Highway 46 West Water System Expansion Project.

Figure 13. The Walzem Chapel (41CM47), view from the southeast.

Several sections of dry stacked stone wall were identified and recorded during the 41CM47 site revisit (**Figure 15**). A small, mostly fallen section of wall was present within the proposed waterline easement (**Figure 16**). Multiple sections of piled stone were noted across the site however, it is unclear if they represent other sections of dilapidated stone wall. As the stone wall is largely in disrepair across the site, the exact extent is unknown as the site boundary extends well outside the proposed current project footprint. The exact dimensions of the wall are unknown as the portion within the project area has completely collapsed, however visual inspection of a section of wall outside of the project area showed it to be much more intact elsewhere. In this section, the wall was approximately 2.5 feet tall and one foot wide (see Figure 15). Two shovel tests were excavated within a small section of the proposed easement as it crosses from a tie-in with existing lines through the site boundary, in this instance limited to the northern corner. Two additional shovel tests were excavated just outside of it. All four were negative and shallow with underlying limestone bedrock encountered at 10 cmbs. Outside of the chapel and associated stone walls, no other artifacts, features, or associated buildings were observed during the investigation within the current project area.

What remains today of the chapel and walls are in relatively good condition. The chapel itself is still standing and portions of the stone wall that surround the property are also intact. Future research value exists as it is unknown how much of the site has been tested or examined outside of the standing chapel (previously recorded in 1966) or the stone walls (recorded as part of the AmaTerra survey). Upon submittal of an electronic site update form to TARL, AmaTerra archeologists were informed that an old farmhouse and cemetery were also noted during the original recording of the site, albeit more than "300 yards away" (Jean Hughes, personal communication, 2017). According to the original Walzem Deed, these are located roughly that

Figure 14. The Walzem Chapel (41CM47), view from the north.

Figure 15. Intact section of stone wall within site boundary.

Figure 16. Dilapidated stone wall within proposed water pipeline easement

distance to the south of the Chapel (Comal County Historical Commission 2017: Attachment C). This is well outside the confines of the current site boundary and proposed project location. The THC's website includes a draft National Register of Historic Places District nomination form for the "Walzem Homestead" dated to May of 2017. The form includes the Walzem residence and associated outbuildings and other features. The Chapel is not included as a contributing component to this district (Kupferschmid 2017).

A 1921 topographic map clearly depicts the Walzem Chapel just to the west of a two-track road (**Figure 17**). Helical lines on the map presumably depict stone walls/fences that were at least visible to the cartographer at the time, none of which presumably correspond to the walls/fences identified during the current survey. A 1958 aerial photograph retained enough resolution to view the site vicinity in some detail (**Figure 18**). In the photograph, the chapel lacks a roof and no other structural features are visible, particularly in the project vicinity. If the stone walls were present at the time, they are not clearly visible and therefore suggest that they may post-date the chapel.

With no structural remnants observed on the surface, within shovel tests, or on historic maps and aerial photographs, and with tests revealing extremely shallow soils directly overlaying bedrock, it is highly unlikely that the purported cemetery or any other associated features are located within the currently-proposed project footprint (if they are extant at all). The chapel and any other intact features should be avoided if any future construction is proposed in the area. If future construction should take place near 41CM47, investigators should be aware of the possibility of a cemetery located somewhere within Walzem's original property.

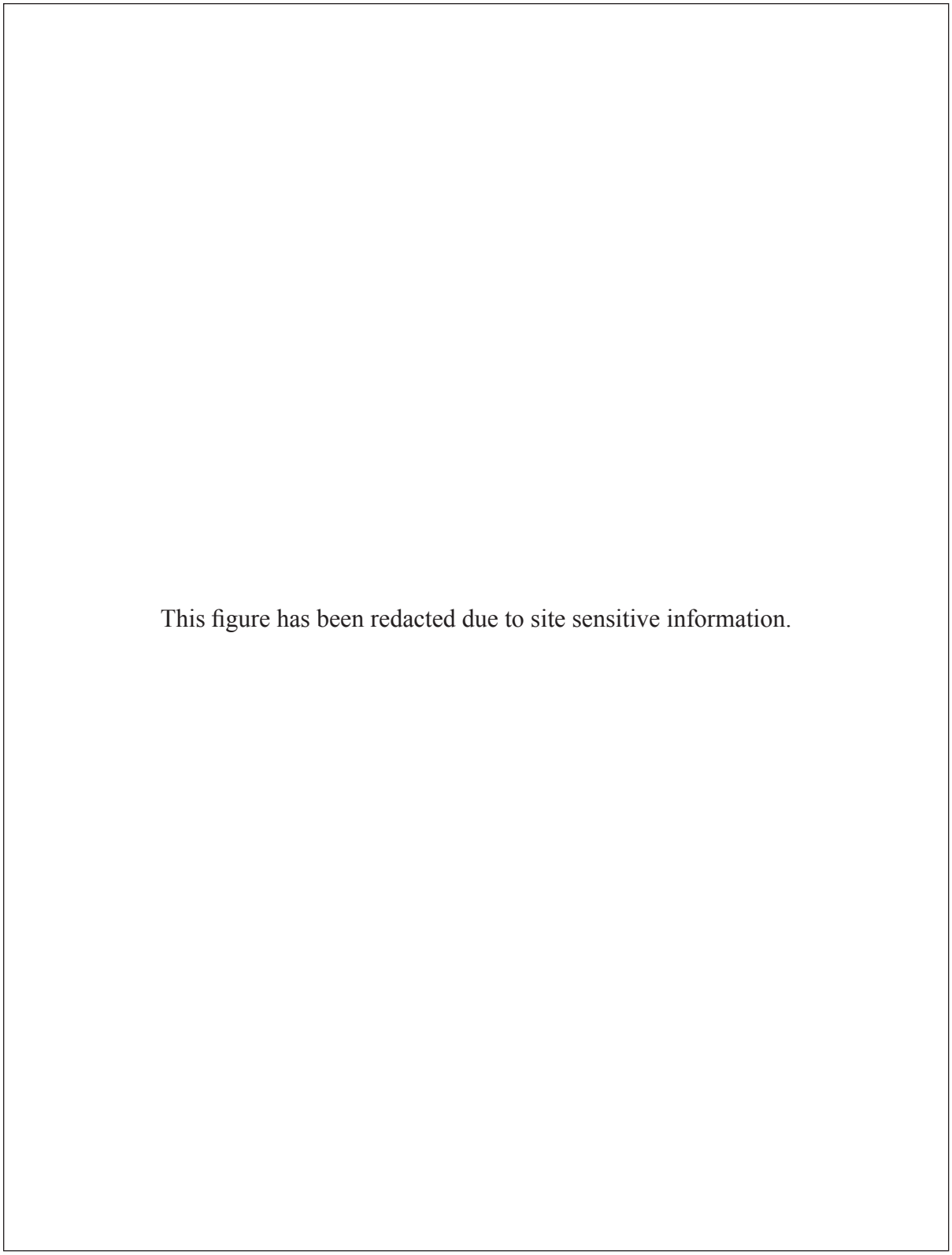

Figure 17. 1921 US Army Corps of Engineers Topographic Map depicting the Walzem Chapel (41CM47) area. Note: Helical lines likely depict stone fences.

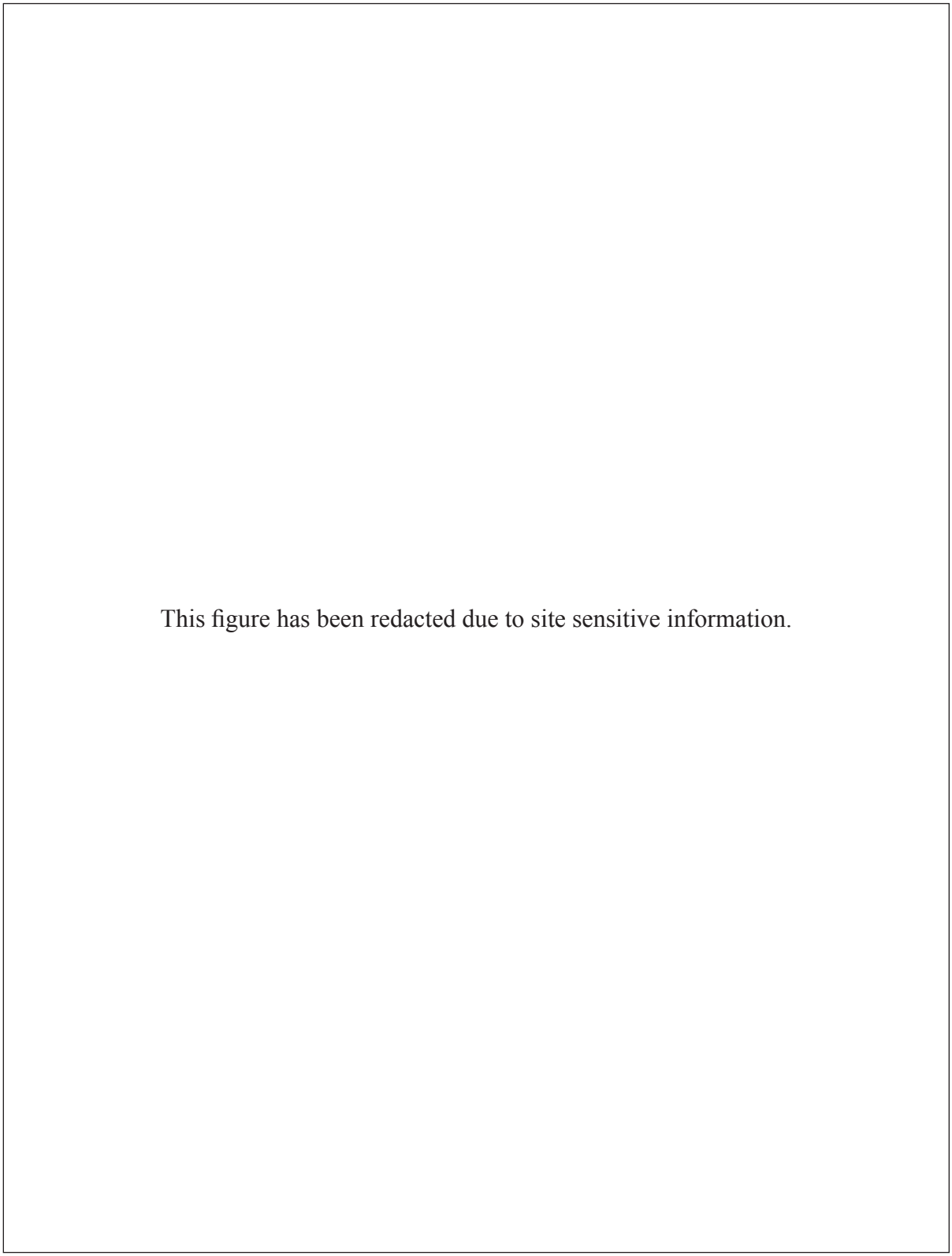

Figure 18. 1958 aerial photograph detail depicting the Walzem Chapel (41CM47) area. Beyond the chapel remains, no other features are visible in the current project vicinity.

Although the stone wall feature bisects a small section of the proposed waterline easement, the section of wall in question is already heavily damaged and reduced to near-rubble. It should not impede the proposed construction as further damage would be negligible. Though this site has numerous features and possibly a cemetery, surface inspection and subsurface tests within the proposed project corridor confirm that the only construction related impacts will be for a small section of dry-laid stone wall. Stone walls of this nature are not uncommon to the region and beyond their direct association with the Walzem Chapel, they are unremarkable. The wall within the proposed easement is not intact and other sections remain better-preserved on the site. Maps and aerial photographs from the early- to mid-twentieth century furthermore suggest that they may post-date the chapel. Construction is therefore unlikely to impact SAL-eligible components to 41CM47. No additional work is recommended at this time. However, the site, upon detailed testing at a future date yet to be determined, may be eligible as a SAL, but not within the current project footprint as the small section of the site located within the proposed construction easement is in ruin.

41CM298

Briefly revisited as part of the survey, 41CM298 was recorded by Hicks & Company archeologists in 2006 as part of the SH 46 highway expansion project (Texas Historical Commission 2017a). The site was defined as a series of several diffuse, light, lithic scatters and a quarry site (Miller et al. 2006). The site was plotted previously in the southeastern terminus of the project area, located along a low, northwardly descending hillslope.

Although four pieces of lithic debitage were noted along the extreme south edge of the site boundary, they were recorded in a secondary context. Construction efforts related to the expansion of SH 46 has caused the destruction of much of the site. Six shovel tests were excavated along the previously recorded southern boundary of 41CM298, but were all negative as the area was confirmed to be heavily disturbed (**Figure 19**). Limestone bedrock was observed within 5–10 cm below surface within the shovel tests and no features or otherwise datable or diagnostic material was observed. The site retains limited research potential due to a lack of integrity, depth of deposits, diagnostic material and features beyond the data that has been previously collected. No additional work within the proposed easement is recommended. Due to the lack of artifacts observed during survey nearby and the extent of disturbance, construction within the SH 46 Pump Station is also unlikely to impact significant site components and no further work is warranted.

Figure 19. SH 46 construction near 41CM298, facing east.

Chapter 4
Summary and Recommendations

On October 18–19, 2017, AmaTerra archeologists carried out a 100-percent surface inspection supplemented with shovel testing at 100-m intervals for NBU's proposed Highway 46 West Water System Expansion Project in Comal County, Texas. Additional tests were placed at one of two separate pump station locations. Disturbances were noted in portions of the APE, although most of the project area was clear of visible impacts. Access was available to the entire proposed project area apart from three parcels where ROE was not granted at the time of the survey. However, cultural resource occurrence is suspected to be minimal in these areas as they were visually assessed from the ROW at the time of the survey. Other than the limited ROE restrictions, archeologists did not encounter any other conditions that inhibited the survey. AmaTerra conducted the archeological survey under Texas Antiquities Permit No. 8195 and work conformed to the guidelines for implementation of these regulations under 13 TAC 26 which outline the regulations for implementing the ACT.

Fifty shovel tests were excavated as part of the investigations along the proposed waterline easements and pump station locations. A single newly-recorded archeological site (41CM411) was recorded and two previously recorded sites (41CM47 and 41CM298) were revisited during fieldwork. Site 41CM411 is a sparse prehistoric lithic scatter with extremely shallow soils and negligible potential to contain intact buried deposits. It is characterized by a lack of features and a lack of dateable material, and by the presumed horizontal displacement of artifacts across the surface caused by sheet wash. The previously recorded 41CM298 lithic scatter and quarry site was absent within the project corridor aside from four secondarily deposited artifacts at the edge of the site. Accordingly, the project will not impact it. The previously-recorded mid-nineteenth century historic Walzem Chapel (41CM47) site was found to have been incorrectly plotted on the Atlas (Texas Historical Commission 2017a) and relocated closer to the proposed waterline easements during the survey. Although a historic limestone wall feature was noted within the proposed construction easement, that wall section is heavily damaged and construction impacts to the site are suspected to be minimal. No further work is recommended within the portion of 41CM47 located within the proposed project footprint.

The Principal Investigator recommends no further work is necessary within the current project area prior to construction and the portions of the three sites within the proposed construction easements are recommended ineligible for listing as SALs. No artifacts were collected during this survey. All records generated during fieldwork will be permanently curated at the TARL.

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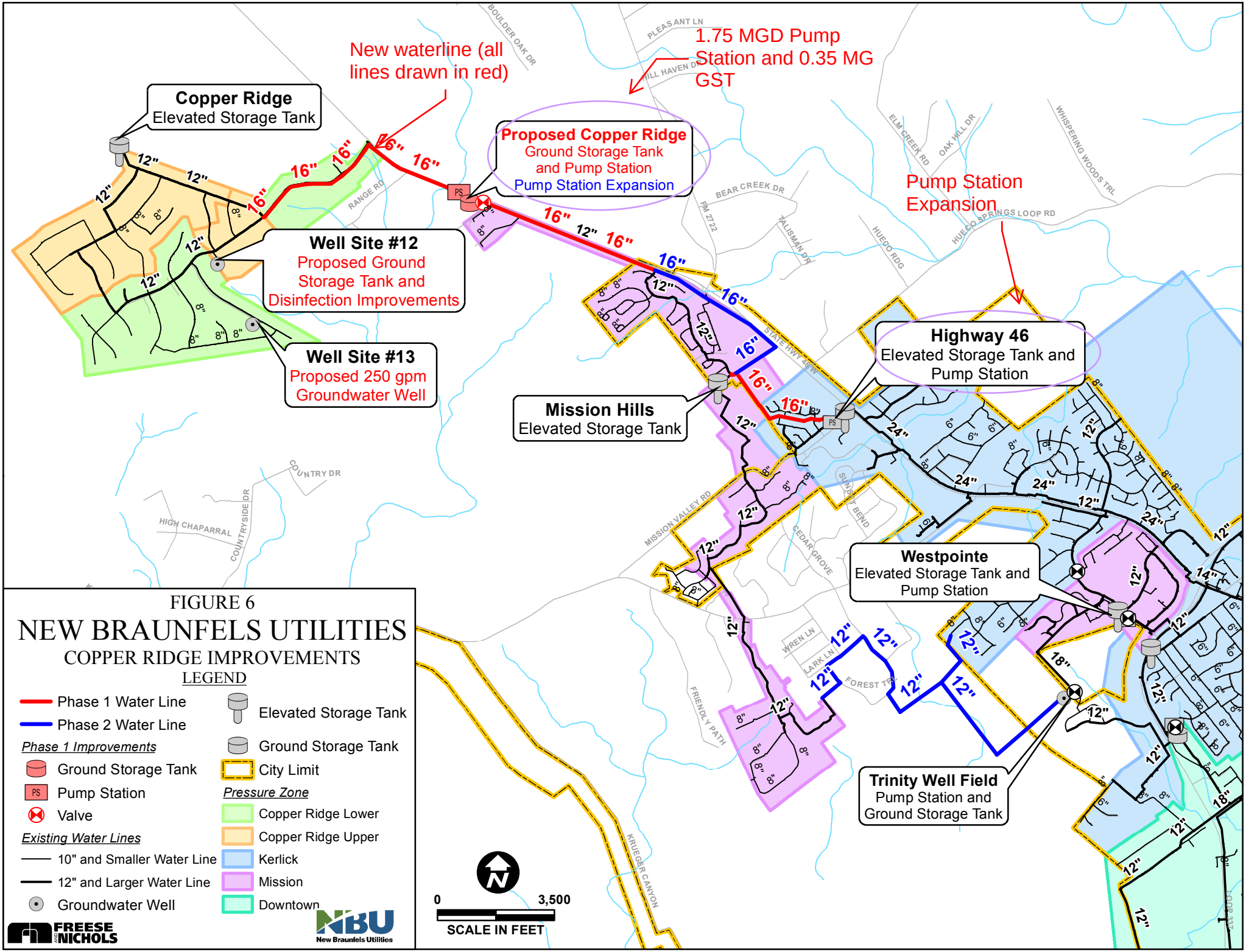
APPENDIX A
NBU PROPOSED CONSTRUCTION PLANS AND MAP DETAILS


New waterline (all lines drawn in red)
1.75 MGD Pump Station and 0.35 MG GST
Copper Ridge
Elevated Storage Tank
Proposed Copper Ridge
Ground Storage Tank
and Pump Station
Pump Station Expansion
Pump Station Expansion
Well Site #12
Proposed Ground Storage Tank and Disinfection Improvements
Well Site #13
Proposed 250 gpm Groundwater Well
Mission Hills
Elevated Storage Tank
Highway 46
Elevated Storage Tank and Pump Station
Westpointe
Elevated Storage Tank and Pump Station
Trinity Well Field
Pump Station and Ground Storage Tank
FIGURE 6
NEW BRAUNFELS UTILITIES
COPPER RIDGE IMPROVEMENTS
LEGEND
Phase 1 Water Line
Phase 2 Water Line
Phase 1 Improvements
Ground Storage Tank
Pump Station
Valve
Existing Water Lines
10" and Smaller Water Line
12" and Larger Water Line
Groundwater Well
Elevated Storage Tank
Ground Storage Tank
City Limit
Pressure Zone
Copper Ridge Lower
Copper Ridge Upper
Kerlick
Mission
Downtown
0
3,500
SCALE IN FEET
FREESE AND NICHOLS
NBU
New Braunfels Utilities

MISSION VALLEY ROAD

EXISTING GRAVEL DRIVE

EXISTING SWING GATES

EXISTING CHAIN LINK FENCE

PROP. 24" WATERLINE (BY OTHERS)

WATERLINE RIGHT-OF-WAY
0.146 ACRES
DOC. NO. 9706010058
O.P.R.C.C.T.

PROP. PUMP STATION (BY OTHERS)

EXISTING CHAIN LINK FENCE

EXISTING ELEVATED STORAGE TANK AND PUMP STATION

EXISTING CONC. SPLASH PAD

PROP. FLEXBASE DRIVEWAY

PROP. ELECTRICAL AND CONTROLS SLAB W/CANOPY

0 10' 20'
SCALE IN FEET

1 SITE PLAN
SCALE: 1"=10'

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

NOT FOR CONSTRUCTION
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF: ANNE C. HOSKINS P.E. TEXAS NO. 103447 ON DATE: 10/3/2017 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

FREESE NICHOLS
9601 Jollyville, Ste. 1008
San Antonio, Texas 78216
Phone - (210) 298-3800
Fax - (210) 298-3801
Web - www.freese.com

NEW BRAUNFELS UTILITIES
COPPER RIDGE PHASE 1 WATER SUPPLY PROJECT
BID PACKAGE 1B - LONG LEAD ITEMS

SITE PLAN

NO.	ISSUE	BY	DATE

FBN JOB NO. NBU17494
DATE 10/3/17
DESIGNED ACH
DRAWN DDH
REVISED
CHECKED CAK
FILE NAME WTU-PS-PL-SITE01.dwg

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DAVID JONAS DRIVE

PERMANENT ACCESS EASEMENT

EXIST. EDGE OF ASPHALT

TEMPORARY CONSTRUCTION EASEMENT

EXIST. EDGE OF ASPHALT

PROP. 8' TALL x 12' WIDE DUAL LEAF, DUAL SWING GATE (BY OTHERS)

PROP. 8' HIGH CHAIN-LINK FENCE (BY OTHERS)

PROP. 16" DIA. D.I. WATER PIPELINE (BY OTHERS)

PROP. ELECTRICAL AND CONTROLS SLAB W/CANOPY (BY OTHERS)

PROP. PUMP STATION (BY OTHERS)

PROP. FLEXBASE DRIVEWAY (BY OTHERS)

PROP. V-SHAPED SWALE (BY OTHERS)

PROP. 12" DRAIN PIPING SEE DTL. 2/T-5

PROP. SAMPLE TAP AND GAUGE SEE DTL'S. 4 & 5/T-6

PROP. 36" WALL MANWAY SEE DTL. 6/T-6

PROP. 8' HIGH CHAIN-LINK FENCE (BY OTHERS)

PROP. 24" DIA. D.I. WATER PIPELINE (BY OTHERS)

EXIST. ASPHALT DRIVEWAY

PROP. 24" DIA. D.I. WATER PIPELINE (BY OTHERS)

PERMANENT WATER EASEMENT

PROP. 16" DIA. D.I. WATER PIPELINE (BY OTHERS)

PROP. FLOW CONTROL VALVE (BY OTHERS)

PERMANENT WATER STORAGE TANK AND PUMP SITE EASEMENT

PROP. WATER METER (BY OTHERS)

PROP. TANK EXTERIOR LADDER SEE DTL. 2/T-7

PROP. 0.5 MG PRESTRESSED CONCRETE GROUND STORAGE TANK (55'-0" INNER DIA.) SEE SHEET T-1

PROP. CONC. OVERFLOW SPLASH PAD SEE DTL. 2/T-5

PROP. 16" TANK OVERFLOW PIPING SEE DTL. 1/T-5

PROP. V-SHAPED SWALE (BY OTHERS)

PROP. 24" 45° BEND (BY OTHERS)

CENTER OF TANK
N: 13821616.52
E: 2215145.57

PROP. 16" 45° BEND (BY OTHERS)

END 16" WATERLINE
1~16" CAP DI, MJ
N: 13821593.56
E: 2215115.23

END OF 24" WATERLINE
1~24" CAP DI, MJ
N: 13821642.11
E: 2215179.40

PROP. 24" INLET PIPING SEE DTL. 1/T-4

PROP. 16" OUTLET PIPING SEE DTL. 2/T-4

PROTECT EXIST. SEPTIC PUMP AND FORCE MAIN

PROP. 8' HIGH CHAIN-LINK FENCE (BY OTHERS)

TEMPORARY CONSTRUCTION EASEMENT

12'

0 10' 20'
SCALE IN FEET

1 SITE PLAN
SCALE: 1"=10'

NOTES:

1. ALL PIPING SHALL BE MECHANICALLY RESTRAINED WITH JOINT RESTRAINTS
2. THIS SITE PLAN SHOWS EXISTING CONTOURS. TANK CONTRACTOR SHALL GRADE THE AREA AROUND THE TANK TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE TANK AS NEEDED. FINAL SITE GRADING WILL BE DONE BY OTHERS AS PART OF LATER BID PACKAGE.

Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

11/2/2017

STATE OF TEXAS
ANNE C. HOSKINS
103447
LICENSED
PROFESSIONAL ENGINEER

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NEW BRAUNFELS UTILITIES

HWY 46 WEST WATER SYSTEM EXPANSION
BID PACKAGE 1A 0.5 MG GST

SITE PLAN

NO.	ISSUE	BY	DATE

FAN JOB NO. NBU17494
DATE 11/01/17
DESIGNED ACH
DRAWN DDH
REVISED
CHECKED CAK
FILE NAME WTU-GST-PL-SITE01.dwg

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APPENDIX B
HIGHWAY 46 WEST WATER SYSTEM EXPANSION PROJECT SHOVEL TEST LOG

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cultural materials

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cultural materials

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cultural materials

APPENDIX C

INTERIM COORDINATION FOR THE COMAL COUNTY PUMP STATION

November 10, 2017

James J. Hill, M.A.
Principal Investigator

Jeff Durst
Staff Archeologist
Texas Historical Commission
1511 Colorado Street
Austin, Texas 78701

Re: Interim Coordination for Proposed Pump Station Location at part of New Braunfels Utilities' Highway 46 West Water System Expansion Project, New Braunfels, Comal County, Texas (Antiquities Permit 8195). *Request for interim concurrence with a recommendation for clearance to proceed of surveyed and site-free proposed Comal County Pump Station prior to late December construction.*

Dear Mr. Durst,

On behalf of New Braunfels Utilities (NBU) and their engineering contractor Freese and Nichols, Inc. (FNI), AmaTerra Environmental Inc. (AmaTerra) has prepared this letter as interim Antiquities Code of Texas (ACT) coordination for the Comal County Pump, a component of NBU's proposed Highway 46 West Water System Expansion project. The pump station is located approximately 3.5-miles northwest of the city of New Braunfels and is part of the larger Highway 46 West Water System Expansion Project. Overall, the proposed Project includes, one new half-acre pump station (Comal County Pump Station), expanding capacity at an already existing half-acre pump station (Highway 46 Pump Station), and installing new and upgrading existing waterlines between the two of them (approximately 3.2 miles total) along the south side of State Highway (SH) 46 and downstream of the proposed Comal County Pump Station. While all of the proposed project components to date have been subject to 100% intensive survey and will be formally presented in a summary report in the near future, this interim letter relates specifically to the Comal County Pump Station. Construction at the Comal County Pump Station has a firm start date of late December but design engineers have recently identified a potential alternative route for the project's proposed water pipeline component that must be evaluated. This letter is presented with the intent of maintaining the construction schedule for the Comal County Pump Station while allowing more time to verify if an alternative pipeline corridor is viable (and survey it as necessary). The initial archaeological survey of the project area has been completed and field data indicates there will be no impact on archeological resources at the proposed Comal County Pump Station. The project is subject to the Antiquities Code of Texas (ACT) because the construction will occur on property and easements controlled by NBU, a political subdivision of the State of Texas. All work was carried out to conform to 13 TAC 26 which outlines the regulations for implementing ACT and was surveyed under Antiquities Permit 8195. With no federal involvement anticipated, this project is not subject to cultural resource regulatory oversight outlined in Section 106 of the National Historic Preservation Act (NHPA).

Summary of Findings

AmaTerra archeological staff completed the initial archeological resources survey on October 17-18, 2017 for the proposed Highway 46 West Water System Expansion Project (**Figure 1**). The Comal County Pump Station is located south of Range Road and will consist of an aboveground storage tank and pump station (**Appendix A**). The proposed pump station was visually inspected and subject to three subsurface shovel tests (in accordance with CTA standards for area survey of projects of one acre or less) (**Table 1**; **Figures 2 and**

3). Shovel tests measured 30 centimeters (cm) in diameter and, due to shallow bedrock, extended to a maximum depth of 50 cm below surface (cmbs). The shovel tests were excavated in 10-cm increments and all soil was screened through a ¼-inch hardware cloth. Shovel tests were backfilled upon completion. Relevant information for all shovel tests was be recorded on a standardized form and shovel test locations were marked with handheld GPS units.

The surface of the proposed pump station location was found to be heavily impacted by previous land-clearing and grading with exposed bedrock in the property corners dictating that all subsurface tests were limited to the site's center. Soils were all loamy, relatively shallow and disturbed as evidence by heavily eroded and mottled soils. No archeological sites were recorded during the survey and no artifacts were collected. As such, due to a lack of any identified archeological materials and an overall poor preservation potential as a result of previous construction related disturbances, no additional work is recommended.

Table 1: Shovel Tests Excavated within the Comal County Pump Station

Shovel Test	Pos/Neg	Easting	Northing	Depth	Color	Texture	Disturbances	Cultural Material	Termination	Date
JH-18	Negative	575042	3290808	0-50	10YR 3/4	Si Cl Lo	Dug in open spot where pumping station will go; flat former agricultural field.	None	bedrock/ mottling	10/18/2017
JH-19	Negative	575041	3290799	0-20	10YR 3/4	Si Cl Lo	Dug in open spot where pumping station will go; flat former agricultural field.	None	bedrock/ mottling	10/18/2017
JH-20	Negative	575041	3290786	0-30	10YR 3/4	Si Cl Lo	Dug in open spot where pumping station will go; flat former agricultural field.	None	bedrock/ mottling	10/18/2017

Regulatory Recommendations

The Principal Investigator (PI) has determined there is minimal potential for construction to impact intact archeological resources on the basis of previously disturbed soils and a lack of archeological materials on the ground surface within subsurface tests. AmaTerra requests your concurrence with the PI's recommendation that construction may proceed at the Comal County Pump Station in accordance with ACT regulations with no archeological resources impacted. A full report of all fieldwork and findings for the Highway 46 West Water System Expansion Project as a whole will be presented in the near future upon completion of field investigations.

We sincerely appreciate your time in reviewing this document and your comment on the project.

Sincerely,

James J. Hill (Josh)
Principal Investigator

FIGURES

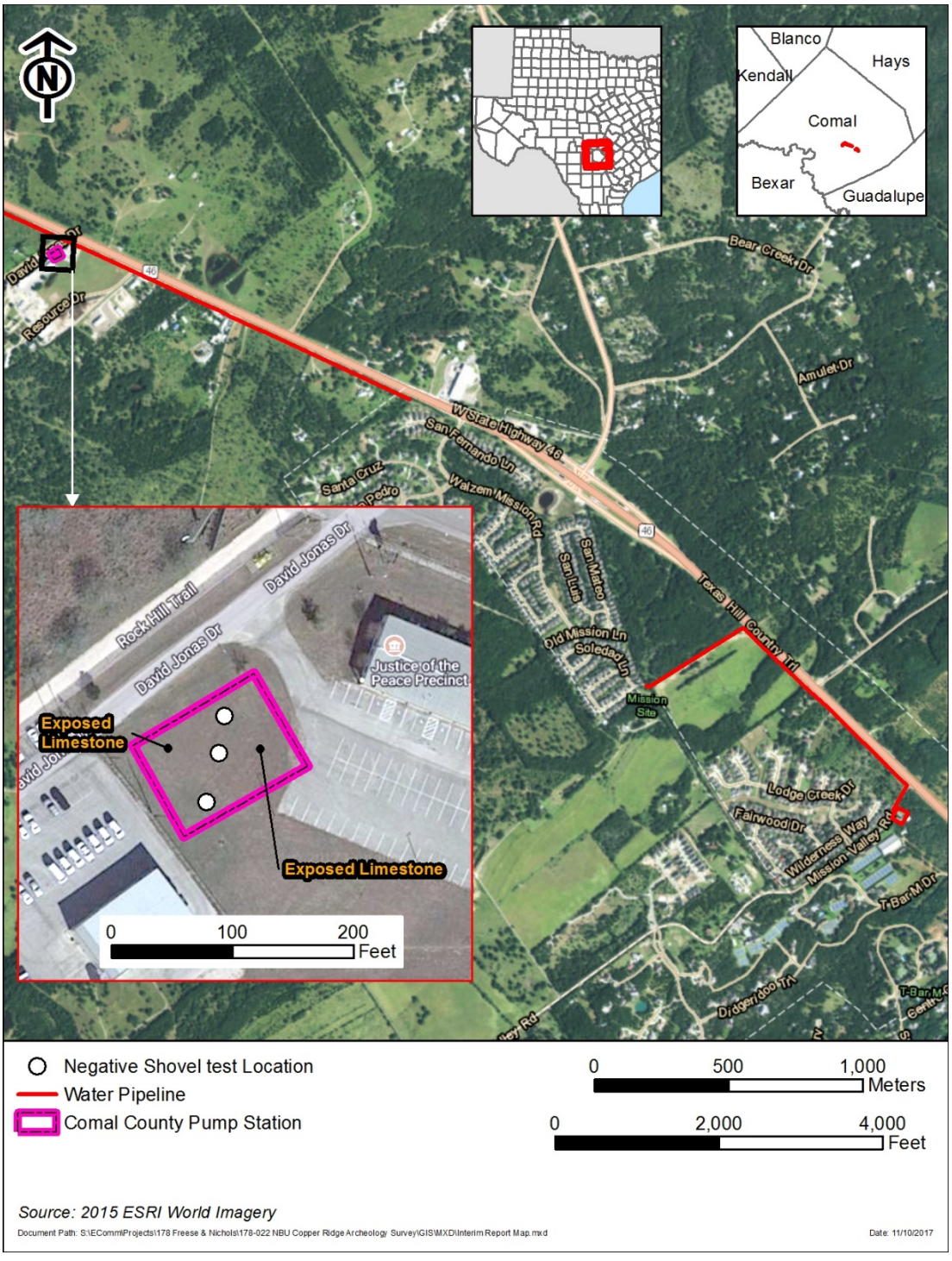

Figure 1: Project Location Map showing the proposed Comal County Pump Station as part of the Highway 46 West Water System Expansion Project in New Braunfels, Texas; note shovel test locations where applicable.

Figure 2: Location of the proposed Comal County Pump Station, facing southeast

Figure 3: Location of the proposed Comal County Pump Station, facing northwest; note AmaTerra personnel shovel testing within the pump station footprint

APPENDIX A – NBU PROPOSED COMAL COUNTY PUMP STATION CONSTRUCTION PLAN LAYOUT

DAVID JONAS DRIVE

PERMANENT ACCESS EASEMENT

EXIST. EDGE OF ASPHALT

TEMPORARY CONSTRUCTION EASEMENT

EXIST. EDGE OF ASPHALT

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PROP. 8' HIGH CHAIN-LINK FENCE (BY OTHERS)

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Freese and Nichols, Inc.
Texas Registered Engineering Firm F-2144

11/2/2017

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NEW BRAUNFELS UTILITIES

HWY 46 WEST WATER SYSTEM EXPANSION
BID PACKAGE 1A 0.5 MG GST

SITE PLAN

NO.	ISSUE	BY	DATE

FAN JOB NO. NBU17494
DATE 11/01/17
DESIGNED ACH
DRAWN DDH
REVISED
CHECKED CAK
FILE NAME WTU-GST-PL-SITE01.dwg

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Mason Miller

From: Info_Tech@thc.state.tx.us
Sent: Tuesday, November 28, 2017 1:49 PM
To: crm; reviews@thc.state.tx.us
Subject: Project Review: 201804074

TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
Permit 8195
201804074
Highway 46 West Water System Expansion Project
State Highway 46 and Range Road
New Braunfels,TX

Dear AmaTerra Cultural Resources Team:
Thank you for your submittal regarding the above-referenced project.

The review staff led by Jeff Durst and Justin Kockritz has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources
- No historic properties present or affected

Archeology Comments
- No adverse effects on historic properties
- THC/SHPO concurs with information provided

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: Jeff.Durst@thc.texas.gov, justin.kockritz@thc.texas.gov.

Sincerely,

For Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

Figure B-1. Index to Historic Age Resources.